LISTING OF PENDING CLAIMS

The currently pending claims are presented as:

1. (Previously Presented) A method for adapting a wireless communications link between a transmitter and a receiver wherein information is communicated in a downlink direction from a base transceiver station to multiple subscriber units and in an uplink direction from said multiple subscriber units to said base transceiver station comprising:

establishing a radio frequency (RF) spectrum as a communications channel in a wireless communication system;

establishing a desired channel quality for uplink communications between said transmitter and said receiver over said communications channel; and

reducing said RF spectrum of said communications channel for uplink communications to achieve said desired channel quality.

2. (Previously Presented) The method of claim 1 wherein reducing said RF spectrum is preceded by:

determining a current channel quality for uplink communications between said transmitter and said receiver over said communications channel;

utilizing all of said RF spectrum of said communications channel for uplink communications if said current channel quality meets said desired channel quality; and

reducing said RF spectrum of said communications channel to achieve said desired channel quality and utilizing said reduced RF spectrum of said communications channel for

uplink communications if said current channel quality does not meet said desired channel quality.

3. (Previously Presented) The method of claim 1 further including allocating additional uplink time slots for uplink communications over said communications channel with said reduced RF spectrum to maintain a desired uplink transmission rate between said transmitter and said receiver over said communications channel with said reduced RF spectrum.

4. (Previously Presented) The method of claim 3 further including taking time slots from other uplink communications channels to compensate for said additional uplink time slots that are allocated to said uplink communications channel with said reduced RF spectrum.

5. (Previously Presented) The method of claim 3 further including:

indicating to said transmitter, the frequency range of the reduced RF spectrum that is to be used for subsequent uplink transmissions; and

indicating changes in time slot allocations as a result of the uplink channel with the reduced RF spectrum.

6. (Original) The method of claim 1 further including utilizing time division duplexing for downlink and uplink communications.

7. (Previously Presented) The method of claim 1 wherein the RF spectrum for downlink communications is greater than the RF spectrum for uplink communications.

8. (Previously Presented) The method of claim 1 wherein reducing said RF spectrum includes:

dividing said RF spectrum into uplink sub-channels; and

assigning at least one of said uplink sub-channels to said transmitter for uplink communications.

9. (Previously Presented) The method of claim 8 wherein dividing said RF spectrum into uplink sub-channels includes dividing said RF spectrum into n uplink sub-channels of equal size, wherein n is an integer.

10. (Previously Presented) The method of claim 8 further including:

establishing a desired signal-to-noise ratio as said desired channel quality for uplink communications; and

assigning a number, m, of uplink sub-channels to said communications channel such that said desired signal-to-noise ratio is met for uplink communications, wherein m is an integer.

11. (Previously Presented) The method of claim 8 further including:

establishing a desired signal-to-noise ratio as said desired signal-to-noise ratio as said desired channel quality for uplink communications; and

assigning a number, m, of uplink sub-channels to said communications channel such that said desired signal-to-noise ratio is met for uplink communications, wherein m is an integer.

12. (Original) The method of claim 11 further including allocating additional time slots for uplink communications to maintain a constant uplink transmission rate.

13. (Original) The method of claim 12 further including utilizing time division duplexing to communicate in the uplink and downlink directions.

14. (Previously Presented) The method of claim 1 further including indicating, to said transmitter, the frequency range of the reduced RF spectrum allocated to the communications channel that is to be used for subsequent transmissions.

15. (Previously Presented) A system for adapting a wireless communications link between a transmitter and a receiver in a wireless communications system wherein information is communicated in a downlink direction from a base transceiver station to multiple subscriber units and in an uplink direction from said multiple subscriber units to said base transceiver station, said wireless communications system having an established communications channel with a known RF spectrum and a desired channel quality in the uplink direction, said system comprising:

means for reducing said RF spectrum of said communications channel for uplink communications between said transmitter and said receiver to achieve said desired channel quality if said desired channel quality will not be achieved using all of said RF spectrum of said communications channel for uplink communications.

16. (Previously Presented) The system of claim 15 wherein said means for reducing RF spectrum further includes means for allocating additional uplink time slots for uplink communications over said uplink communications channel to maintain a desired uplink transmission rate between said transmitter and said receiver over said uplink communications channel with said reduced RF spectrum.

17. (Previously Presented) The system of claim 15 further including a quality of service manager for supplying said desired channel quality to said means for reducing said RF spectrum.

18. (Previously Presented) The system of claim 15 further including a timeslot manager for allocating additional time slots to said uplink communications channel with said reduced RF spectrum.

19. (Original) The system of claim 15 further including a channel manager for dividing said established communications channel into uplink sub-channels.

20. (Previously Presented) The system of claim 15 wherein said means for reducing said RF spectrum operates in response to a signal received from said transmitter at said receiver, wherein said receiver is located within said base transceiver station and said transmitter is located within one of said multiple subscriber units.

21. (Previously Presented) A method for adapting a wireless communications link between a transmitter and a receiver wherein information is communicated in a downlink direction from a

base transceiver station to multiple subscriber units and in an uplink direction from said multiple subscriber units to said base transceiver station comprising:

identifying a radio frequency (RF) spectrum that is available for use as a communications channel in a wireless communications system;

establishing a desired channel quality for uplink communications between said transmitter and said receiver over said communications channel; and

selecting a portion of said RF spectrum that enables said desired channel quality to be met for uplink communications.

22. (Previously Presented) The method of claim 21 wherein selecting a portion of said RF spectrum is preceded by:

determining a current channel quality for uplink communications between said transmitter and said receiver over said communications channel;

utilizing all of said RF spectrum of said communications channel for uplink communications if said current channel quality meets said desired channel quality; or

reducing said RF spectrum of said communications channel to achieve said desired channel quality and utilizing said reduced RF spectrum of said communications channel for uplink communications if said current channel quality does not meet said desired channel quality.

23. (Original) The method of claim 21 further including allocating additional uplink time slots for uplink communications over said communications channel to maintain a desired uplink transmission rate between said transmitter and said receiver over said communications channel.

24. (Original) The method of claim 23 further including taking time slots from other uplink communications channels to compensate for said additional uplink time slots that are allocated to said uplink communications channel.

25. (Previously Presented) The method of claim 23 further including:

indicating to said transmitter, the frequency range of said selected portion of said RF spectrum that is to be used for subsequent uplink transmissions; and

indicating changes in time slot allocations to said transmitter.

26. (Original) The method of claim 21 further including utilizing time division duplexing for downlink and uplink communications.

27. (Previously Presented) The method of claim 26 wherein the RF spectrum for downlink communications is greater than the RF spectrum for uplink communications.

28. (Previously Presented) The method of claim 21 wherein selecting a portion of said RF spectrum includes:

dividing said RF spectrum into uplink sub-channels; and

assigning at least one of said uplink sub-channels to said transmitter for uplink communications.

29. (Previously Presented) The method of claim 28 wherein dividing said RF spectrum into uplink sub-channels includes dividing said RF spectrum into n uplink sub-channels of equal RF spectrum size, where n is an integer.

30. (Previously Presented) The method of claim 28 further including:

establishing a desired signal-to-noise ratio as said desired channel quality for uplink communications; and

assigning a number, m, of uplink sub-channels to said communication channel such that said desired signal-to-noise ratio is met for uplink communications, wherein m is an integer.

31. (Previously Presented) The method of claim 28 further including:

establishing a desired signal-to-noise ratio as said desired channel quality for uplink communications; and

assigning a number of uplink sub-channels to said communications channel such that said desired signal to noise ratio is met for uplink communications.

32. (Original) The method of claim 31 further including allocating additional time slots for uplink communications to maintain a constant uplink transmission rate.

33. (Original) The method of claim 32 further including utilizing time division duplexing to communicate in the uplink and downlink directions.

34. (Previously Presented) The method of claim 21 further including indicating, to said transmitter, the frequency range of said selected portion of said RF spectrum that is to be used for subsequent transmissions.

35. (Previously Presented) A method comprising:

establishing a communications channel with an initial radio frequency (RF) spectrum;

reducing the initial RF spectrum to a subsequent RF spectrum in response to an indication that the communication channel at the initial RF spectrum fails to achieve a desired channel quality; and

selectively increasing a number of time slots dedicated to the communications channel to offset throughput degradation resulting from the reduced RF spectrum.

36. (Previously Presented) A method according to claim 35, the element of reducing the initial RF spectrum comprising:

dividing the initial RF spectrum into a plurality of sub-channels; and

selectively employing only a subset of the plurality of sub-channels as the subsequent RF spectrum for the communications channel

37. (Previously Presented) An apparatus comprising:

a transceiver to establish a wireless communication channel of an initial radio frequency (RF) spectrum with at least one other apparatus, wherein the transceiver selectively reduces the RF spectrum of the communications channel to a subsequent RF spectrum to achieve a desired channel quality if the desired channel quality will not be achieved using the initial RF spectrum

of said communications channel for uplink communications, and to increase a number of timeslots allocated to the communication channel to offset any throughput degradation resulting from the reduced RF spectrum.

38. (Previously Presented) An apparatus according to claim 37, further comprising:

one or more antenna, at least a subset of which selectively coupled to the transceiver, to enable the establishment of the wireless communication channel with the at least one other apparatus.